

In The Claims:

- 1 1. (Currently Amended) A filter module comprising a lens, three optical fibers, an
2 optical filter, and a mirror, wherein said three optical fibers are arranged on a single side
3 of said lens, wherein the filter module is configured to receive a signal and to output a
4 filtered portion of the signal and an unfiltered portion of the signal on the single side of
5 said lens.
- 1 2. (Original) The filter module according to claim 1, wherein said lens is a
2 refractive index distribution type rod lens having first and second end faces on opposite
3 sides of the lens, wherein the first end face is coated with said optical filter, and wherein
4 said three optical fibers are arranged on the second end face.
- 1 3. (Original) The filter module according to claim 1, further comprising a capillary
2 for holding said three optical fibers, wherein the capillary is provided with a through hole
3 for holding the three optical fibers.
- 1 4. (Original) The filter module according to claim 3, wherein said through hole is
2 formed by three inner walls, wherein said three optical fibers contact each other in said
3 through hole, and each of said three inner walls contacts two optical fibers.
- 1 5. (Original) The filter module according to claim 1, wherein said mirror is a board
2 having a wavelength independent total reflection mirror, and said mirror is arranged to
3 face said optical filter.
- 1 6. (Original) The filter module according to claim 1, wherein said optical filter is a
2 wavelength selective transmitting film, and wherein a set of fiber collimators is provided
3 facing said wavelength selective transmitting film.
- 1 7. (Original) A demultiplexing/multiplexing unit, which is a multichannel
2 demultiplexing/multiplexing unit formed by connecting in cascade a plurality of filter
3 modules, wherein each of the filter modules comprises a lens, three optical fibers, an

4 optical filter, and a mirror; and said three optical fibers are arranged on a single side of
5 said lens.

1 8. (Original) The demultiplexing/multiplexing unit according to claim 7, wherein
2 said lens is a refractive index distribution type rod lens having first and second end faces
3 on opposite sides of the lens, wherein the first end face is coated with said optical filter,
4 and wherein said three optical fibers are arranged on the second end face.

1 9. (Original) The demultiplexing/multiplexing unit according to claim 7, wherein
2 said filter module further comprises a capillary for holding said three optical fibers, and
3 the capillary is provided with a through hole for holding the three optical fibers.

1 10. (Original) The demultiplexing/multiplexing unit according to claim 9, wherein
2 said through hole is formed by three inner walls, wherein said three optical fibers contact
3 each other in said through hole, and each of said three inner walls contacts two optical
4 fibers.

1 11. (Original) The demultiplexing/multiplexing unit according to claim 7, wherein
2 said mirror is a board having a wavelength independent total reflection mirror, and said
3 mirror is arranged to face said optical filter.

1 12. (New) The filter module as recited in claim 1, wherein the three optical fibers
2 includes a first fiber, a second fiber, and a third fiber, the first fiber configured to carry a
3 first signal characterized by a first wavelength and a second signal characterized by a
4 second wavelength different from the first wavelength, the second fiber configured to
5 output one of the first and second signals from the filter module, and the third fiber
6 configured to carry the other of the first and second signals from the filter module.

1 13. (New) The filter module as recited in claim 1, wherein all of the optical fibers of
2 the filter module are arranged on a single side of said lens.

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1 14. (New) A filter module, comprising:

2 a lens having a first end and a second end opposite the first end;

3 at least three optical fibers are arranged at the first end of the lens;

4 an optical filter positioned at the second end of the lens; and

5 a mirror disposed at the second end of the lens with the optical filter

6 therebetween, wherein all of the optical fibers of the filter module are arranged on a
7 single side of said lens.

1 15. (New) The filter module as recited in claim 14, wherein the at least three optical
2 fibers includes a first fiber, a second fiber, and a third fiber, the first fiber configured to
3 carry a first signal characterized by a first wavelength and a second signal characterized
4 by a second wavelength different from the first wavelength, the second fiber configured
5 to output one of the first and second signals from the filter module, and the third fiber
6 configured to carry the other of the first and second signals from the filter module.

1 16. (New) The filter module as recited in claim 14, the lens is a refractive index
2 distribution type rod lens having first face at the first end and a second face at the second
3 end, wherein the three optical fibers are arranged at the first face of the lens, and wherein
4 the second face is coated with the optical filter.

1 17. (New) The filter module according to claim 14, further comprising a capillary for
2 holding the three optical fibers, wherein the capillary is provided with a through hole for
3 holding the three optical fibers, wherein the through hole is formed by three inner walls,
4 and wherein the three optical fibers contact each other in the through hole, and each of
5 the three inner walls contacts two optical fibers.

1 18. (New) The filter module according to claim 14, wherein the mirror is a
2 wavelength independent total reflection mirror, and the mirror is arranged to face the
3 optical filter.

1 19. (New) The filter module according to claim 14, wherein the optical filter is a
2 wavelength selective transmitting film, and wherein a set of fiber collimators is provided
3 facing the wavelength selective transmitting film.

1 20. (New) The filter module according to claim 14, wherein a plurality of the filter
2 modules connect in a cascade to form a multiplexing/demultiplexing unit.